



COMMUNICATING *Together*

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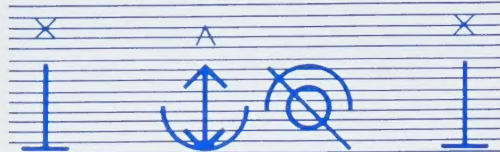
Vol. 1 No. 1

Winter 1983



A courtroom triumph

COMMUNICATING together



Vol. 1 No. 1 Winter 1983

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McNaughton

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Gurley. Justin Clark gives his land-
mark courtroom testimony using
Blissymbols. The drawing is based
on a sketch of the trial by Jewell
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Communicating Together is published quarterly as a means of sharing with their families, communities and the professionals who work with them, the experiences, systems and techniques of non-speaking people. Special attention is given to the non-reader's augmentative communication system and the role of Blissymbolics.

The Blissymbolics Communication Institute was established in 1975 to facilitate the use of Blissymbolics as a communication system for non-speaking persons around the world.

BCI Affiliates and Information Centres are situated in —

Canada: Alberta, British Columbia, Manitoba, Newfoundland and Labrador, Nova Scotia, Ontario, Quebec

United States: Alabama, Florida, Michigan, New York, Ohio, Oklahoma, Pennsylvania, South Dakota

Other than North America: Argentina, Australia, Belgium, Bermuda, Brazil, Denmark, Finland, France, Iceland, India, Israel, Italy, New Zealand, Norway, Portugal, Sweden, Switzerland, Spain, The Netherlands, United Kingdom, Venezuela, West Germany, Zimbabwe

Through BCI and its Affiliates, over 8,000 instructors have been trained worldwide.

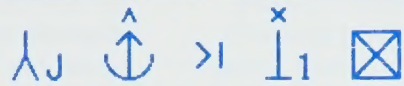
Blissymbolics is a system providing comprehensive communication for the non-speaking non-reading person. It can be used with a variety of picture systems and technologies, and with traditional orthography — offering a basic structure for the non-reader's augmentative communication system.

Blissymbols used herein are derived from the symbols described in the work *Semantography*, original copyright© C.K. Bliss, 1949.

September, 1982, C.K. Bliss granted an exclusive, non-cancellable and perpetual, worldwide license to the Blissymbolics Communication Institute, for the application of Blissymbols, for use by handicapped persons and persons having communication, language and learning difficulties.

The symbol composition and drawings appearing in articles are in accordance with *Blissymbols for Use*, compiled and edited by Barbara Hehner, and published by the Blissymbolics Communication Institute, Toronto, 1980.

Justin Gives to us All



by Shirley McNaughton

On November 26, 1982, Judge John Matheson of the Lanark County Court in Perth, Ontario, stated, "In a spirit of liberty, the necessity to understand the minds of other men and the remembrance that 'not even a sparrow falls to earth unheeded,' I find and declare Matthew Justin Clark to be mentally competent.'" So ended what has been called a 'landmark case for the rights of the handicapped' — and the first court case in Canadian history in which Blissymbols have been used by a witness to give testimony.

Described as moderately to mildly retarded and severely disabled, Justin Clark was admitted to Rideau Regional Centre for the Retarded in Smiths Falls, Ontario, at two years of age. In 1974, at 12, he met Carol McLauchlan, who taught him Blissymbolics for the next six years. Learning a way to communicate changed the world for him. Justin's mastery of Blissymbolics enabled all those around him to recognize that an alert mind lived within his disabled body. To anyone who would listen, he poured out the many, many questions that had been stored up for years.

At the age of 18 (legal age of adulthood), a Rideau Centre psychiatrist certified that Justin Clark was able to make his own decisions about matters affecting his life.

Justin's father, Ronald Clark of Ottawa, concerned for his son's future, filed court action to have him declared mentally incompetent under Ontario's Mental Incompetency Act. In the ensuing highly publicized, week-long case, Justin told the court, through his Blissymbol board, that he believed he was capable of making choices for himself.

At the end of the trial, Judge Matheson challenged Canadians to look beyond an individual's physical disabilities to his or her total capacity for learning and development — in a decision which was not only a legal landmark but the seal on a triumph of the human spirit.



Justin with his friend Normand Pellerin. Photo courtesy Toronto Star Syndicate.

"Who will make decisions for you, Justin?"

11

My experience as Justin's court interpreter was a very moving one. During my own testimony, when I was asked to explain the use of Blissymbolics, I felt overwhelmed by the vast amount of knowledge needed by the judge, the lawyers

and Justin's family if they were to truly understand the young man before them in the courtroom. They had so much to consider: his eighteen years in an institution for the mentally retarded; his severe physical limitations; his inability to speak in a way they could understand; his 'new to them' communication system; his unique and special world perspective; his enquiring mind, eager to learn, yet deprived of normal opportunities and experiences. They had to learn, too, of the

new and emerging resources and support systems for the physically disabled and the community living arrangements springing up in many regions.

I did my best to describe and explain the capabilities, requirements and effects of Augmentative Communication. Yet, when I left the witness stand, I was filled with doubt. How much of what I had tried to communicate could be really understood in such a short time?

Then it was Justin's turn to 'speak.' Although formally designated as his interpreters, Katherine Commodore of the Rideau Regional Centre and I were actually his very careful 'listeners.' I made it clear to the court that we would be *transposing* his message into spoken English rather than *interpreting* the message Justin would be conveying through Blissymbols, gestures and words. We knew the importance of this testimony and how critical it was that we not miss or alter any information he wished to transmit.

I will never forget the reaction within the courtroom — the concentrated attention for more than an hour as Justin pointed to his Blissymbols and I spoke his messages. One could feel Justin's intense concentration reflected within everyone in the courtroom. Then, his testimony finished, a standing ovation led by Justin's family climaxed what was surely a rare moment of high human endeavour.

Justin had come a long way since his first encounter with Blissymbols. He had achieved a communication capability that allowed him to defend his personal rights in a court of law and in so doing had championed the right of all physically disabled persons to be evaluated by their mental abilities, not by their physical disabilities. I left the courthouse feeling the highest respect and admiration for Justin and those who supported him.

The Gift of Understanding

Those of us who work in the field of rehabilitation regularly experience the joy of giving to individuals. But Justin has moved beyond us; his courage has reached across Canada and given to everyone. His steadfast belief in his own worth,

his conviction that he must be allowed to make his own decisions about his life and his unswerving loyalty and love for family and friends, has bestowed new insight and understanding upon us all:

- To his many friends, Justin gave a sharing and caring companionship, and the courage to persevere throughout the long months of legal preparation.
- To his care-givers, instructors and social workers at Rideau Regional Centre, Justin gave the opportunity to work through the structures of their setting and demonstrate the profound effect of human support even within a large institutional facility.
- To his family, Justin gave trust and loyalty matched with the independent spirit of all 20-year-olds.
- To people who have never thought about the many disabled, non-speaking people living their lives in institutions, Justin brought the strengths and concerns of this group into bright public view.
- To everyone in the community, Justin gave vivid proof of the miraculous potential for growth that is part of every human being.

And, just as we always gain bountifully as we give, I wish that Justin may receive:

- The gift of time, to learn and to grow in whatever situation he chooses to live;
- The gift of friends with whom he can gain personal respect and companionship; and
- The gift of a family able to give him the love and understanding he has given them.

Our New Understanding

In Justin, we have witnessed the power of one non-speaking person who is determined to communicate to those around him, and we have witnessed the effect this can have upon the world — both his and ours. □

We have recognized a gentle, trusting, believing spirit and very much a thinking human being who has a unique part to play in our compassionate interdependent society.

*Judge Matheson
November, 1982*

A POET BREAKS FREE

A Fragile Tree — Has Roots

by John C. Walker



Thinking proudly,
They don't understand
Throwing your mind to the sky
Just as the sun is rising.

Try to realize,
A life with chains and double
locks
This body of mine.

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Communicating Together applauds ARCH (Advocacy Resource Centre for the Handicapped) for helping Justin learn of his legal rights and for providing legal counsel so that he might defend those rights.

International News



Blissymbols in Italy

by Loretta Biasutti

Loretta Biasutti is a clinical psychologist in private practice in Calgary, Alberta, Canada. Her work includes psychological assessment, behavioural programming, teaching and Blissymbolics consultation.

When BCI first asked me over a year ago if I would be interested in teaching at two Elementary Blissymbolics Workshops in Italy, my immediate response was an enthusiastic Yes! What an opportunity, I thought. Born in Canada of Italian parents, I had visited Italy twice before; now I was being offered the chance to introduce Blissymbolics to a nation in which I felt deep roots.

My enthusiasm, however, soon gave way to panic. How would I manage in Italian? Though I had always spoken a Northern Italian dialect at home, my knowledge of formal Italian was based only on some high school classes and a bit of work experience in an Italian butcher shop. I knew how to translate 'chicken' and 'cutlet,' but not how to say anything like 'psychologist.' However, after several frantic phone calls around town I was given the name of a woman willing to tutor me, and for six months we practiced conversation, studied grammar and reviewed Italian translations of the Elementary Workshop materials.

The arrangements called for two workshops, one hosted by La Nostra Famiglia, a treatment centre for the handicapped operated by the Little Apostles of Charity, and the other by the City of Milan. During the period in which the arrangements were made, I exchanged many letters with Dr. Aurelia Rivarola, the workshops' principal organizer, and a co-presenter, which helped me feel more confident. Then, as soon as I stepped off the plane in Milan, all my fears were forgotten. Dr.

Rivarola was warm and personable, and my Italian was better than I had thought. We plunged right into our preparations for the first course, and once we began talking about our common interest in Blissymbols, any remaining language or cultural barriers were dissolved.

We also discovered the strengths and limitations of Blissymbol use in Italy. I realized, for example, that the system cannot, as I had naively assumed, be applied in a non-English-Speaking country without modifications and additions. There were also serious gaps in vocabulary: where were the symbols for pasta, pizza and sweater? Symbol users and instructors objected to using the same symbol for both coat and sweater, since almost everyone in Italy seemed to wear lightweight sweaters except in summer. So much for my theories about hot-blooded Italians!

In the evenings, Aurelia and I spent hours discussing the fine points of translation. In the process of deliberating over the best choice for the translation of a particular symbol, we were forced to analyze meanings of English words, Italian words and the Blissymbols themselves. As a result we both have an increased appreciation for the work

of the Blissymbolics Communication Institute in developing vocabulary to meet the needs of symbol users around the world.

The workshops themselves — full of lively discussions and disagreements — were among the most stimulating I've ever attended. The other participants marvelled at what they saw as total dedication in Canada to increasing the independence of the handicapped from a very young age, while I marvelled at their truly multidisciplinary approach to the needs of the child: specialist physicians, researchers, therapists and parents all attended the workshops together. There were, however, more similarities than differences in our concern for integration and for community acceptance of the handicapped. 'Tutto il mondo e paese' (The world is a global village) became a motto for everyone.

Pina Gennaro, the speech therapist instrumental in developing the use of Blissymbolics in southern Italy, came to Milan for the last two days of the second workshop (Pina and Aurelia are collaborating on the translation and publishing of the Italian materials), and we took the opportunity to discuss some translation details. I deeply appreciated



La Nostra Famiglia Blissymbol Workshop



Pina Gennaro watches intently for the symbol message.

Pina's willingness to assist with the final workshop presentations when Aurelia had to leave to be with her very ill mother.

I will carry with me forever the intensely personal moments, both happy and sad, that brought me closer to the people I met. I especially treasure these memories: studying Blissymbolics by candlelight with Aurelia during a brief power failure; joining in an impromptu singalong with the sisters at La Nostra Famiglia; laughing with the participants at some of my hilarious language errors; comforting Aurelia following the death of her mother. I feel privileged to have had the opportunity to meet so many fine people while expanding my understanding of Blissymbolics.

*** ** *

And in Southern Italy...

While efforts have been directed toward the training of instructors in northern Italy, intensive program development has been underway in

the south. For example, at the Consorzio Siciliano di Riabilitazione (Sicily Rehabilitation Centre), Catania, Italy, Blissymbol users have been instructed by BCI Senior Presenter and Affiliate, Pina Gennaro; translations of instructional materials have been completed; negotiations for the publishing and distribution of materials have been made; and a Blissymbol department composed of two therapists, a teacher and assistants, has been established.

In June 1982, an Elementary Training Workshop was held in Catania, with Ena Davies, Senior Presenter from Great Britain, joining Miss Gennaro to teach instructors. Since that time, Miss Gennaro has been busy sharing her growing knowledge at many conferences in Italy, such as the International Congress in Vercelli. One highlight for Miss Gennaro came last fall when ten Blissymbol users at her Centre received their first communion — each with his own Blissymbol catechism for the event!□

Internship at BCI/ACS

by Sachi Tamura

Sachi Tamura is an instructor in the Augmentative Communication Service and is the co-ordinator of the BCI Internship Program.

The BCI/ACS Internship Program gives professionals an opportunity to be part of five typical weeks in the lives of the Augmentative Communication Service people, who occupy one wing of the second floor at the Ontario Crippled Children's Centre. In the fall of 1982, the interns taking part were Fleur Lynn, a speech therapist from New Zealand; Peter Breitenbach, a teacher, and Monica DeBoorder, a physiotherapist, both from Switzerland; Miguel Toledo Gonzalez, a doctor, and Pilar Such Acin, a psychologist, both from Spain.

Applications for internship usually begin coming into the BCI office as early as January, though many letters, information packages and telegrams are exchanged before the new interns finally appear on the doorstep of OCCC in early November. (Funding arrangements undertaken by interns involve them in many months of planning and preparation.)

Once in Toronto, a full schedule awaits them. This past year they were able to share the excitement, challenge and success of the Second International Non-Speech Conference (see p.21). During their stay, the interns had the opportunity to contribute to a Blissymbolics Elementary Workshop as the first step in their training to be presentors, and spent time with Augmentative Communication Service people learning about client services, assessment procedures and the microcomputer applications program. They also followed consultants through typical sessions with clients (pre-schooler to adult) concerning program implementation and parent/teacher training.

Every moment was an opportunity to gain new information. Observation of programs outside OCCC were scheduled as well, giving interns an opportunity to see a range of augmentative communi-

cation services in other settings, and to search library and audiovisual resources. Finally, time with BCI staff was scheduled, to help prepare all interns for the leadership and responsibility they will undertake in their home countries in the areas of training, publications, research and symbol development.

BCI/ACS internship provides five busy, exciting weeks that can only happen because ambitious committed individuals take the initiative and find the means to come to North America for study. They only happen because busy professionals stretch their already full schedules to include the interns in their programs, and because people like the Laing family, Mrs. Flo Graham-Smith and Brenda Thistle provide reasonably priced accommodation and help the interns feel at home away from home.

What better way to learn about providing service in Augmentative Communication than by concentrated, day-to-day involvement? Hopefully future programs in New Zealand, Switzerland and Spain will show that the intensive effort put into these five special weeks has been more than worthwhile. □

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Family and Community



Expressing Emotions

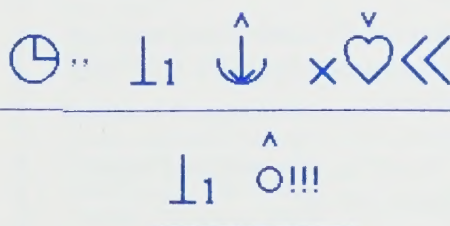
with Andrew and Mark

Andrew Murphy of Toronto has been communicating with Blissymbols for several years. In this column, appearing in each issue, Andrew and his father Mark share their experiences and those of other families with the special perspective of people who communicate in a special way.

In 'Perspective' (p.16), Dr. David Yoder stresses the great differences between the kind of interaction possible for those who speak and those who use an augmentative communication system. Nowhere is this difference more apparent than in the expression of emotion. Here's how we feel about emotions — from three different perspectives.

From Andrew:

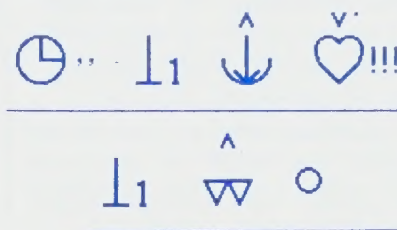
Before Christmas, my dad and brothers were invited to see a hockey game at Maple Leaf Gardens. The special part about it was that they were going to sit in one of those special boxes way up on the top and be treated like kings. My sister had been in the box to see the Ice Capades and said it was 'neat'. She said you could see what was happening on the ice, and there was also television and drinks and food.



I was very excited to go myself, but my parents explained to me that I couldn't go because there were too many steps and it was too difficult to get my wheelchair up there. So I got angry and started to scream. My parents wondered why I was



screaming. They asked me if I understood why I couldn't go, and when I said yes, they said they felt I should understand and be quiet. But I was still angry and I still felt like screaming. Finally, my mother said it was fine and that I could scream if I wanted to; that it was natural for me to want to scream when I was angry. After twenty minutes of screaming, I felt a little better.



Another emotion I have special difficulty with is excitement. When I get excited I bite my lip and sometimes it makes me cry. My parents don't know whether I have a problem or whether I'm excited. It's hard to find out if I'm excited *before* I bite my lip because sometimes I don't even realize I am getting excited. So once I bite my lip everybody is confused about what hap-

This section of *Communicating Together* is sponsored by Pilot Club International, Ontario District.

pened and it takes a long time to sort it out.

One emotion that's easy for me to express is happiness, because you can always see it in my eyes and my smile. I don't have to use my Blissymbols to show people I'm happy.

From Mark:

Many of us, both as users of Blissymbols and as parents, know the deep emotion that is felt when a child is first able to use Blissymbols. It is generally the first time a child is able to initiate a conversation rather than responding to a question with a yes or no. Of course, we are all different in this respect; some people have great difficulty expressing their emotions while others are very emotional. It is, however, much more difficult for Blissymbol users to express emotion, especially when trying to express the *degree* of the emotion: are you a little sad or very sad; a little angry or very angry? Pointing out needs or communicating facts with Blissymbols is much easier than communicating emotions. Trying to communicate emotions is often accompanied by some — and sometimes a great deal — of frustration.

When Justin Clark became the first person ever to use Blissymbols in a courtroom, there was no confusion about the emotion he, and everyone witnessing the case, felt. Justin's squeal of joy reinforced the emotion he tried to communicate with his Blissymbols, and the positive feelings felt by those in the courtroom, especially the reporters and the judge, were communicated daily in newspapers across the country. When the verdict was announced in Justin's favour, overwhelming joy and happiness were felt by everyone.

We can thank Justin for making so many people in the community aware of Blissymbols, and we congratulate him on achieving his freedom. We can all be justly proud of what Justin has done.

From Andrew's Teacher:

My students feel many strong emotions, many of which are expressed at school. For example, they are sometimes frustrated, hurt and angry about situations in their homes over which they feel they

have no control: arguments between brothers and sisters and parents and children; brothers and sisters excluding them from their activities; brothers and sisters neglecting to help their parents with shopping, clearing dishes, etc., when help is urgently needed.

Throughout their family life, non-speaking children experience the range of emotions felt by all children, but their ways of expressing these emotions are limited or difficult to interpret. Talking it out at school often helps a little.

* * * *

Don't forget to write and let us know what your experiences are. We all want to hear and to share.

Interested readers please write Andrew Murphy, 29 Kellythorne Drive, Don Mills, Ontario, Canada M3A 2L5.

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Sharing Ideas With Nora

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'Sharing Ideas with Nora' is a forum for sharing information concerning all aspects of Augmentative Communication. Nora Rothschild, consultant with the Augmentative Communication Service of the Ontario Crippled Children's Centre, heads up this regular column focusing on readers' questions, answers, problems and experiences.

Dear Nora,
I teach a class of six non-verbal mentally retarded children. The entire class is learning Blissymbols and using them to communicate. I feel that the symbols for food, such as pizza, mustard, ketchup, etc., are important vocabulary items to introduce. However, the Blissymbols for these are so complicated that the children have difficulty understanding them. Can you give me any ideas?

Hoping to hear from you soon,
Food for Thought.

Dear Food for Thought,
Thank you for sharing your problem. I think all of us working in this field have experienced a similar dilemma. As you know, it is possible to combine and create your own Blissymbols (e.g., pizza is

round food that's hot). Still, depending on your students' abilities and your own goals in teaching symbols, you might consider using another system to teach these words. For example, you may want to try using pictures from one of the many picture systems available — Picsyms, PICS, The Oakland Schools Picture Dictionary, Rebus, etc.*

Or, for some children it may be more meaningful to draw the item while the child is watching. The drawing doesn't have to be perfect. The important thing is that the child take an active part in the production; then he/she is more likely to remember the item. Our ultimate goal, don't forget, is to help the child communicate.

P.S. A note of caution: before using any communication system it is important to have a sound basic knowledge of its capabilities. Also, before including several systems together on a communication display, the instructor should be aware that different systems may call upon and promote different cognitive skills.

** ** *

Dear Nora,

I am a speech pathologist in a large school. At the present time there are two Blissymbol users within the school, one child using symbols at a much higher level than the other. My time for seeing both children is limited to three half-hour sessions. Can I group them together? Would it benefit one, or the other, or both? Sincerely,
Pressed for Time

Dear Pressed for Time,

Thank you for your enquiry. You will need to make a decision whether to see the two children together after considering their ages, interests, capabilities etc. However, I do think there are merits in grouping the children. Depending on your goals, you might wish to organize the group sessions in order to give the children a variety of tasks. You

could plan sessions that provide structured communication, offer some unstructured time just for conversation, or you could try a blend of the two.

Hopefully, you will find that the better symbol user becomes a model for the less capable child, and that their sessions together provide an opportunity to introduce new symbols (which also just may offer incentive to the less capable symbol user). Group sessions can also become special times when the higher-level symbol user can feel successful and helpful. These children are usually helped by others; they don't often have an opportunity to be of help themselves.

** ** *

I hope these suggestions have been useful. Be sure to write again if there are further questions or comments.

Readers interested in sharing ideas with Nora should address their correspondence to: Nora Rothschild, Communicating Together, Blissymbolics Communication Institute, 350 Rumsey Road, Toronto, Ontario Canada M4G 1R8.

** ** *

* Picture System Contacts

Picsyms

c/o Faith Carlson
Meyer Children's Institute
University of Nebraska
Medical Center
444 South 44 Street
Omaha, Nebraska 68131
U.S.A.

PIC

George Reed Foundation for the Handicapped
Box 3400
Regina, Saskatchewan
Canada S4P 3W1

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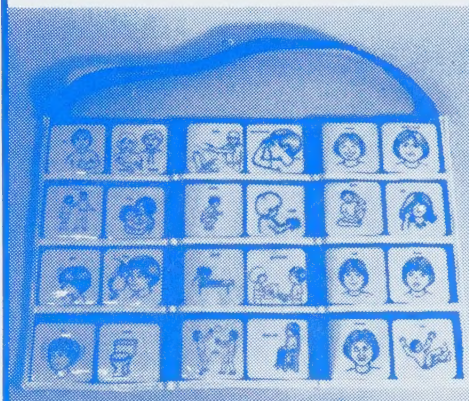
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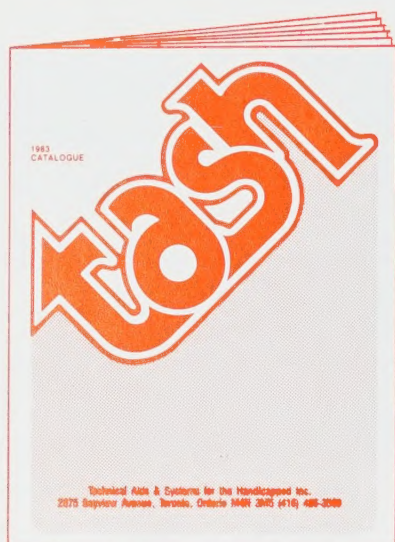
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Teaching and Learning



The Blissymbol Camp Morning Program

by Barbara Collier and Marny Loach

Barbara Collier and Marny Loach were part of the team of consultants from the Augmentative Communication Service involved in the experimental Blissymbol Camp Program at the Ontario Crippled Children's Centre. Barbara Collier gives an overview of the program. Marny Loach describes the morning school segment.

In the summer of '82, that familiar ending to so many old stories — 'Tired but happy, they all went home' — was changed to, 'Totally exhausted, but very satisfied with all they had shared, they drove to homes far from Toronto.' The 'they' in this more recent story were four young Blissymbol users (aged 4 to 7) and their families, who participated in the Blissymbol Camp Program, a pilot project organized and implemented by the staff of the Augmentative Communication Service in recognition of the special problems encountered by very young symbol users.

Held from August 16 to 27, 1982, at the Ontario Crippled Children's Centre, the program involved the hospital staff (the children shared a room in the hospital wing), the therapy department (there were wheel-chair seating problems to be solved) and the 'A' Playroom staff, who carried the use of symbols over into a natural play setting during the less structured afternoon sessions.

The children were chosen because, living outside of Toronto, they did not have easy access to the Augmentative Communication Service. Also, despite the fact that all four children had a vocabulary of 100 symbols, none had ever met another symbol user. Their symbol programs were being implemented

at home and at regular schools (parents and teachers having been trained in symbol instruction).

Obviously the most important thing to do was to give these young children an opportunity to meet other symbol users. Important, too, was the need for the parents to learn that other ways of communicating — gesture, vocalization and facial expression (already relied upon by the children) — were to be responded to and encouraged. When introducing Blissymbols to a child there is a danger that the system can become mechanical; that too much attention will be given to the physical setup of the system (i.e., vocabulary, layout, teaching syntax and solving accessing problems), and that these can often be addressed at the expense of the most important factor — interaction.

Interaction was the focus of our group. The children participated in a morning session where they were exposed to symbols through play, circle time, stories, news time, etc. They were also encouraged to interact in their own way while the effectiveness of the Blissymbol system was demonstrated by the teacher and the other children.

While the children shared a room in the hospital, the mothers shared rooms in the nearby OCCC motel. Fathers, too, were encouraged to attend, although space constrictions did not allow them accommodation at the motel. The parents attended group sessions focusing on developing improved interaction techniques, and in addition had the opportunity to observe their children through a one-way mirror.

Parents were taught how to take turns with their child, allowing the child an opportunity to interact, not only in conversation but in games and other activities. They were alerted to the importance of looking for a response from the child — pausing, waiting and patiently



Morning Camp children at 'circle time' with Marny Loach (l) and Cathy Fairley (r).

giving the child an opportunity to take his turn in communicating or in an activity. They were also given ideas on how to ask questions which would not limit responses to yes or no. The parents appreciated the chance to discuss their experiences and difficulties with a group of people who understood what it was like to have a physically handicapped non-speaking child, and supported each other as they discussed similar experiences.

The children, meanwhile, were introduced to computers and electronic toys (for some, the computer will be a viable education and communication tool), and had an opportunity to use them both individually and in a group setting. Everyone was encouraged by the children's progress (they had begun to use longer and more complex sentences, giving us new kinds of information) and their renewed interest in communicating with their symbols.

The two weeks were an exhilarating, exhausting and most worthwhile experience for the children, parents and staff. We look back on the Blissymbol Camp Program with

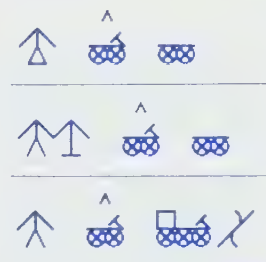
immense satisfaction. We know that the parents now have a greater understanding of how their child is communicating, and how they can help him. They also know that *communicating* is the name of the game, and that the Blissymbol system is only one means to effective and meaningful communication.

The Morning School

Because the main goal of the morning school time was interaction between the four symbol users, the 100-word vocabulary used by each child was checked for a core of common words. The children's shared vocabulary included *people* symbols, a few basic verbs and prepositions and symbols for *transportation, clothing* and *buildings*. As lessons were planned, it was decided to feature these symbols in a structured but natural manner. Circle time was necessary, both to

share a common subject and to show how other symbol users communicated with the teachers and with each other.

People symbols were introduced as family members were written in symbol form on each child's own poster story. As well, symbols depicting *wheels* and the action *to go* were part of a large bulletin board created to introduce the theme of transportation. The verb *drive* was given to encourage two or three symbol statements. For example:



Mother drives (a) car
Grandfather drives (a) car
Dad drives (a) fire truck

This section of *Communicating Together* is sponsored by Arnold B. Irwin, of Irwin Toy Ltd., Toronto, Ontario.

The use of symbol sentences was reinforced as the children made symbol pictures with paint, Plasti-

cine and sand to decorate the hospital room. Body parts and clothing were subjects that sparked a great deal of spontaneous symbol talk as the teacher was directed to dress the Sesame Street character, Bert, and to mime his actions to match his body parts. Stories were read to reinforce new symbols, and songs such as 'See You Later, Alligator' and 'Hokey Pokey' gave each child an opportunity to learn the actions in their correct order.

Snack time was used effectively as well. There were choices of two bananas dressed as a boy and girl, symbol cookies and symbol toast (to make symbol toast, a symbol is painted in milk on a slice of bread, the bread is toasted, and presto! the symbol stands out white against the toasted background). The children then responded with their choice:



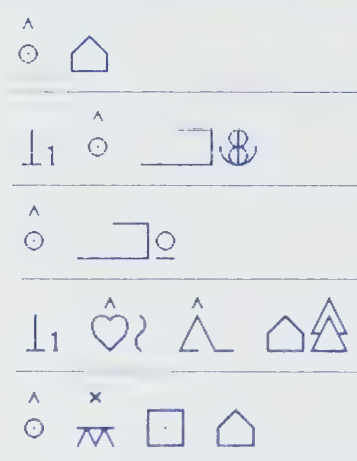
I want boy
I want symbol food

As the days progressed, so did the responses of the children, both to the program and to each other. There was a noticeable increase in vocalization, and the children spontaneously interacted together with symbols in play situations. They were consciously aware of turn-taking, an important prerequisite to conversation. They knew, for example, that each could have a turn when a conversation was started, and they were able to see others engaged in symbol conversations. Instructors were also careful to structure their conversation in a way that encouraged more spontaneous responses. By the time the formal topic 'buildings' was reached, the group was feeling comfortably at home.

The classroom was decorated with three-dimensional representations of wide paper roads leading to a house, a postbox and then right up the wall to a bulletin board displaying a street lined with miniature cardboard buildings (house, school, store, restaurant); vehicles (car, bus,

truck, pinned on the 'road'); and people (boy, mother). The bulletin board was hidden until the children could take in the full impact of the changed classroom.

The class had an instant reaction, with responses such as:



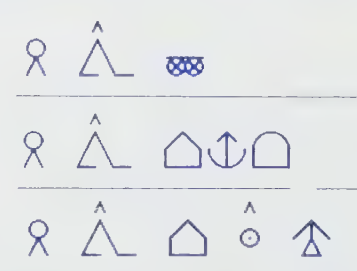
See house
I see store
See restaurant
I want to go to church
See animal in house

Plastic, self-adhering pictures also held great interest as the children found a picture of a big dog in a dog house that had fallen on the floor. Seeing the picture, one boy delightfully pointed to:



Fall down

This, in turn, prompted much vocalization and reinforced the concepts 'in,' 'under' and 'on' as the children guessed the answer. The roads leading to the bulletin board then led to a shared story about the boy's day:



Boy go car
Boy go school
Boy go house to see Mother

The children seemed to pre-think their statements and were conscious of turn-taking. The mothers joined the group at the 'restaurant' at snack time to enjoy a symbol decorated cake (the children chose the symbols they wanted). The story, 'The Fat Cat,' was then presented, using a number of puppets. The children named the puppets and participated in ordering their words and actions.

After this typically busy morning, the children were almost too tired for afternoon playroom time. However, the goal — communication between symbol users — had been achieved. It was worth it!

*** ** *

Following the Blissymbol Summer Camp, this letter was received from a participating parent:

Dear Barbara,
The Blissymbol Summer Camp was a very enriching experience for the whole family. When we left to go to the camp, we were all at a standstill point in everything that concerned our son, Christian, especially in the communication area. But, seeing that there were other children like him must have made him realize he is not the only one who has to use Blissymbols to communicate. He uses his symbols a lot more since we came back home.

The staff were wonderful. Everyone tried their best to make this two-week experience very fulfilling.

It was also rewarding to be able to share the feelings, worries and everything else involved when you raise a non-speaking, handicapped child. Those mothers were living or had already lived the same or a similar experience. By talking to them, we got a lot of new ideas; for instance, how to teach a non-speaking child his colours, alphabet, numbers, etc., or just how to encourage him to use his symbols more often to communicate with us.

We hope that all of us have a chance to relive this experience. We all need a boost every once in a while, and we got ours from the Blissymbol Summer Camp.

Yours truly,
Viola and Bertrand Aube
Timmins, Ontario

Total Communication in Hamilton

by Cathy Fairley

Cathy Fairley is a special education teacher with Scarborough Board of Education, Scarborough, Ontario.

Total Communication (TC) has been associated in the past with the teaching of deaf students. It has been defined as 'the simultaneous production of the spoken word and the manual sign.' Now used very successfully with other groups of students with communication disorders, including the physically handicapped, autistic, multi-handicapped and the mentally retarded, Total Communication has a new expanded meaning. Now, speech, signs, pictures, Blissymbols and the printed word are combined to create a total communication environment. Its objective: the fostering of language development and social interaction.

In the schools of Hamilton, Ontario, 45 miles southwest of Toronto, a Total Communication program was begun two years ago in classes for trainable mentally retarded (TMR) children. The classes are located in three junior schools, one high school and six satellite classes integrated into regular school settings. In all, 410 students are enrolled in Hamilton TMR classes. Of these, 102 students (25%) lack functional speech. Co-ordinator for the program, Barbara Rush, believes that the multi-sensory approach of TC is invaluable for these students; that through TC they gain cues from a variety of sources of input and have the opportunity for a great deal of repetition. In this way, receptive and expressive language skills are enhanced, both through oral speech and through the augmentative systems of signs and symbols.

The name Barbara Rush may be familiar to many readers of this publication. Prior to the introduction of *Communicating Together*, she was editor of the former BCI Newsletter. In 1970, she began teaching non-verbal cerebral palsied students at Hamilton's Cerebral Palsy Centre, where she first used Blissymbols six months after their development

at the Ontario Crippled Children's Centre in Toronto. Since 1980, Mrs. Rush has been the resource person for all non-speaking students and their teachers in the Hamilton area. Her responsibilities include involvement with physically handicapped students, their teachers and parents, as well as her new area of interest — TMR students and TC classes.

The TC classes in all TMR schools operate on a withdrawal basis (i.e., children are removed from regular classes to attend TC classes). In the junior schools, there are nine to eleven children in each class and they meet daily. At the high school level, twenty students form the class and they meet three times a week. Speaking students who are interested or would benefit from the additional language instruction are also involved. The high school communication class is, in fact, so popular it has a waiting list!



Mrs. Rush and student sign a symbol

Group instruction revolves around a specific topic and includes group discussion, sentence composition and reading composed sentences back to the class. New vocabulary is introduced and the picture, sign and symbol presented. In many cases the symbol and sign complement each other, and are more easily learned by the students. The derivation of each sign and symbol is always explained in order to reinforce the underlying meaning. Vocabulary is not just taught; it is

always introduced in a meaningful context so that students will learn its communicative use. An emphasis is placed on oral speech as well as signs and symbols. Mrs. Rush feels that through this program, many students will indeed develop more functional speech.

Mrs. Rush visits each school one day a week, leading the class and providing essential training and support for the regular teachers. She works with each child individually (introducing and reviewing vocabulary), and consults with the student's home-room teachers. One of her major objectives for the TC program is to expand the 'community of listeners' in order to create a broad and varied population of individuals that non-speaking students can communicate with through signing, pictures or symbols. To this end, she teaches classes in signing and Blissymbolics to parents, teachers and even shopkeepers and other members of the community who interact with non-speaking students.

But by far the most popular and exciting way of teaching and involving the whole school is the Signing Choir conducted by Mrs. Rush at a different school each year. The non-speaking students and other interested (speaking) children get together one afternoon a week to learn new songs. Then, singing and signing, they perform for the entire school in a weekly assembly.

Whether singing, signing or using Blissymbols, the success of the TC program is obvious. TMR students show they both can and want to communicate. If only there were a Barbara Rush in every community!□

Special Ways of Communicating Together

We were pleased to receive a subscription donated to Extendicare Nursing Centre, Scarborough, given in memory of Isabel Taylor by her daughter and son-in-law, Eleanor and Lew Benvenuto. We hope that *Communicating Together* will make it easier for everyone at Extendicare to understand the special difficulties facing their non-speaking residents.

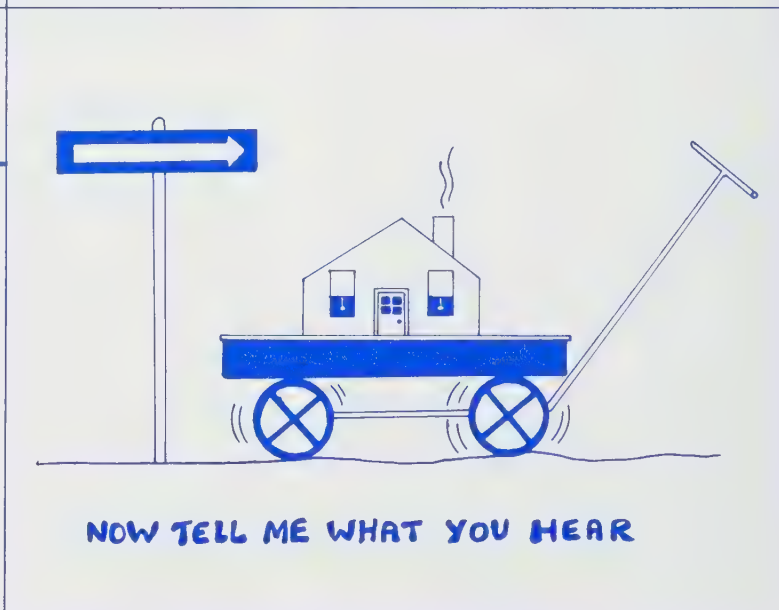
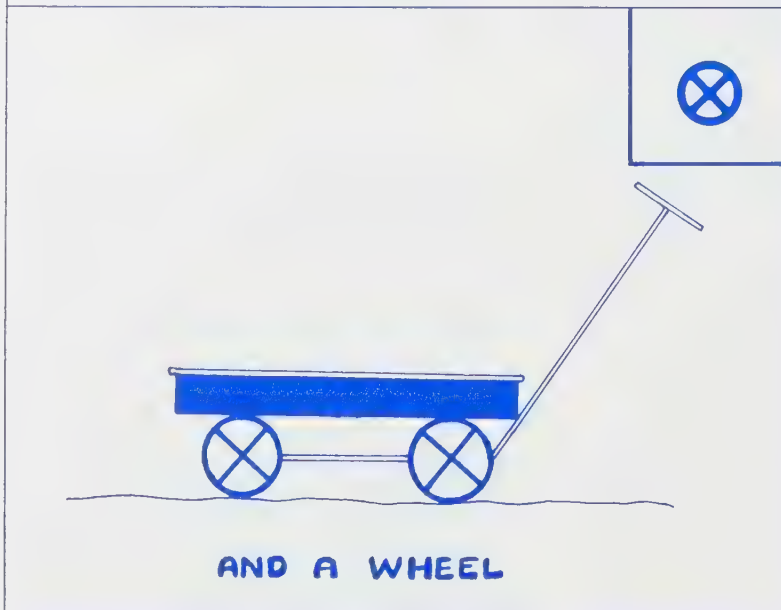
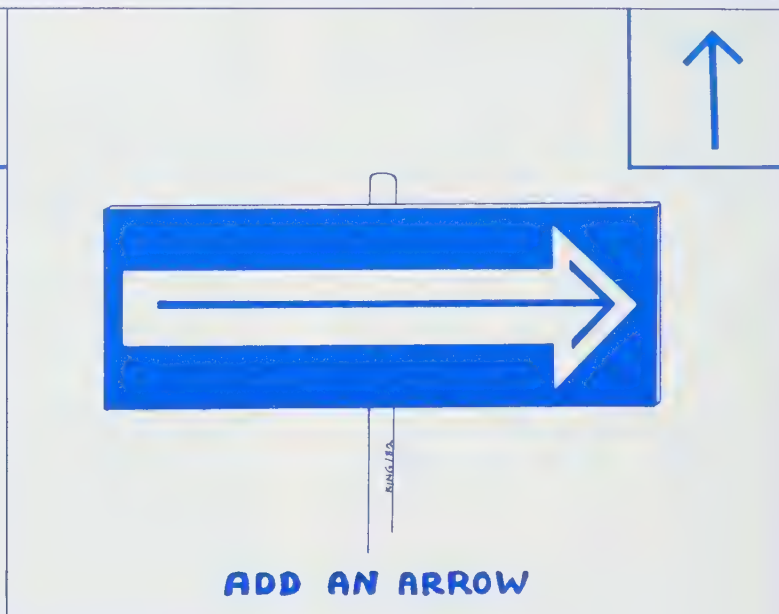
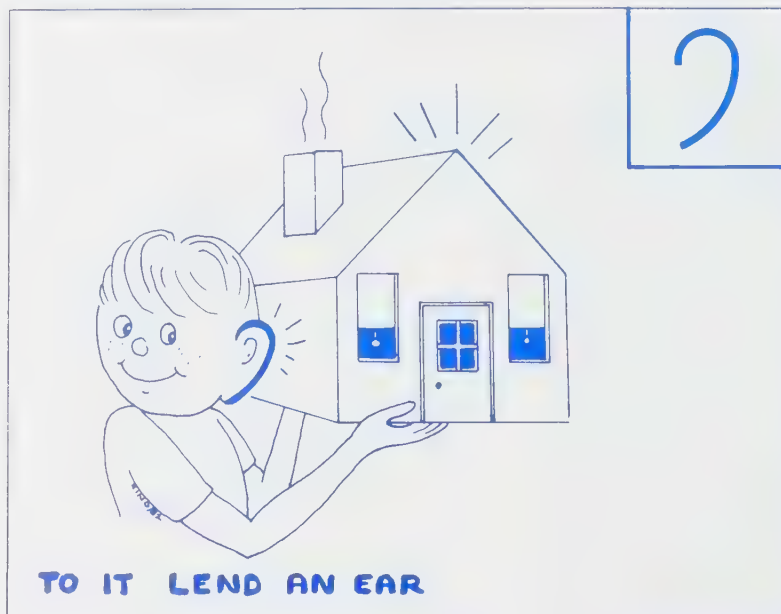
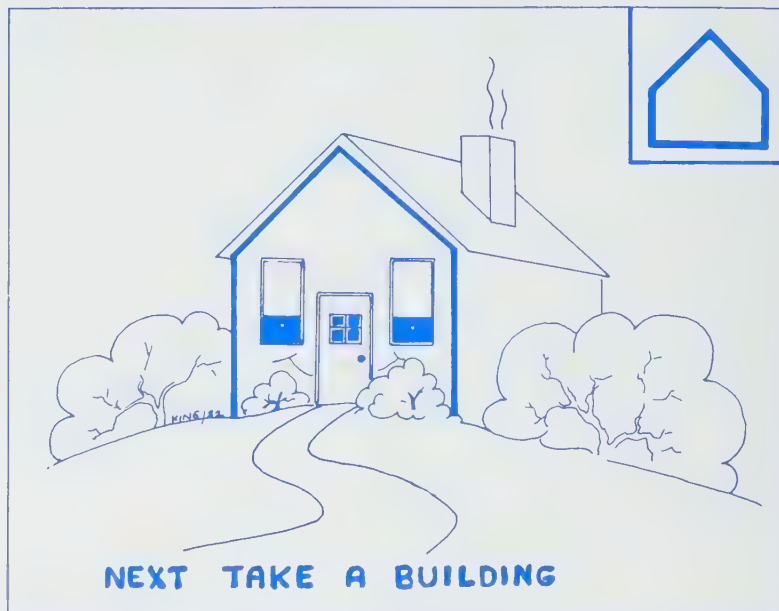


Teaching the Blissymbol Alphabet

As you will remember, our Inaugural Issue (Fall, 1982) introduced the new Blissymbol Alphabet Song, an excellent way to become familiar with Blissymbols and a lot of fun to sing. Introduced as well were the first four in a series of alphabet cards designed to complement the song and to help teach the Blissymbol Alphabet. This issue features the next five cards in the series.

Readers who missed the Inaugural Issue and would like to collect the full set of alphabet cards are welcome to write to BCI for copies while they last (see inside front cover for details).

The alphabet card series will continue in upcoming issues. Meanwhile, more fun ways of teaching the alphabet are being developed. Don't miss the next item in this section, the first of the Blissymbol alphabet stories created by Nancy Lageer. □



△ · ^ ⊥ ∠ + × △ ^ - | > ? ! , 0 1 2 3 a b c

The Blissymbol Alphabet Stories

Singing the Blissymbol Alphabet Song or reciting the words is only one approach to learning the ordering of the Blissymbol Alphabet. You can also guide students through the alphabet, and have fun at the same time, using a method devised by Nancy Lageer, Blissymbol classroom teacher at the Ontario Crippled Children's Centre.

When she discovered that her class of children loved stories and pictures, Nancy Lageer sat down and created three short stories with

accompanying alphabet pictures. As each story was told, she associated the story line with the Blissymbol shapes, giving the children both auditory cues from listening to the stories and visual cues from the pictures. The children loved them, and learned a great deal at the same time.

The three stories created by Miss Lageer, each depicting one third of the Blissymbol Alphabet, will be presented one at a time in the winter, spring and summer issues of *Communicating Together*. Readers are encouraged to adapt the stories or pictures to meet individual teaching situations. Have fun! □



Visiting Grandma

~ Water came

♥ from a little **heart's** eyes

because he couldn't remember the **number** 11

△ of his grandmother's **house**

. until his **ears** heard

↑ an **arrow** go into his

⊗ bicycle **tire** sss sss. 'I know now,' he said.

COMMUNICATION OUTLOOK

Focusing on Communication Aids and Techniques

A Quarterly Publication of the
International Action Group
for Communication
Enhancement

Communication Outlook is the only international publication focusing on communication aids and techniques for persons who experience communication handicaps. Serving as a standard reference for developments in the field of communication enhancement, it is widely read by speech pathologists, teachers, medical doctors, computer scientists, rehabilitation engineers and manufacturers, distributors and users of communication aids.

Communication Outlook features:

NEWS ON AIDS: Articles on commercially available aids, aids under development and components to build aids.

NEW MATERIALS: Materials of general interest available either commercially or privately.

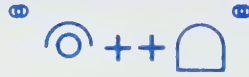
WHERE THE ACTION IS: Reports from readers about centers and groups working on various aspects of communication enhancement.

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Perspective



An Interview with David Yoder

David Yoder is a Walker-Bascom Professor in the Department of Communicative Disorders at the University of Wisconsin-Madison. He is also Head of the Communication Aids and Systems Clinic at the University. In 1984 he will serve as President of the American Speech-Language-Hearing Association, an organization representing more than 37,000 speech-language pathologists and audiologists.

What is concerning me is this. We've been doing a relatively decent job of getting words and symbols on the communication board so our non-speaking people can at least get their thoughts and ideas across. And that's good. But there's still a big problem. The natural flow, the give and take of normal conversation, is still missing. We miss a lot, you see, because we spend too much time looking at the symbol/word board to see what word is being pointed at, and we don't look at each other. As a result, a lot of communication and interaction is lost.

Parents actually do a much better job with this than do teachers and clinicians. When I ask the mother of a young cerebral palsied child, 'How do you know what your child wants?' she will often reply, 'Oh, I can tell by her eyes. I can see it on her face, and by the way she moves.' Yet, when we bring the same child into the Speech and Language Clinic or the classroom, what the clinician or teacher immediately wants to find out is what words they know, what symbols they can recognize. We become so intent on teaching these children to point to that word or that symbol that we neglect the more powerful communicative exchange, which is just looking right at the children and absorbing what they're attempting to communicate.

Having spent 25 years profes-

sionally associated with cerebral palsied individuals, it is my belief that it is up to us at this point to find out what the intent of their additional communications are. I see few persons pushing this aspect of the work. Professional people could ask parents to assist them with this kind of information a lot more than they do. Parents could help us so much more with so many things — meaning and understanding, comprehension levels, more effective means of communication.

At this point we are attempting to make clinicians and teachers more aware of looking broadly at what goes into communicating, and the whole range of what our non-speaking people are attempting to 'say' to us. To do this we're trying to bring to peoples' attention the fact that in any human interaction you must be aware, for example, of the expression in the eyes, the facial expression generally and the body movements. Secondly, even if a child is not using speech, he or she can make sounds. Most non-speaking children can. In fact, many of them will regularly give emphasis vocally to a word they point to on the symbol board.

We have videotapes of some communication board users and one of the young men is continually making vocal sounds as he points, in order to embellish what he's saying. Some listeners are very distracted by this. In fact, I've had some students say to me, 'you know, it would be much better if Joe didn't use his voice.' But to attempt to stop him would be the worst thing we could do — and the last thing I would do.

What I am suggesting we do is look at the synchrony of communication, meaning that we must co-ordinate the vocal sounds with the words, the facial expressions and the body movements. If I say, 'It's hot,' for example, I automatically synchronize the word 'hot' with facial expressions and the different intonation patterns that emphasize

the word and tell you how I feel about it. In other words, from my facial expressions you pick up all sorts of additional information.

Now when Joe uses certain vocalizations, certain sounds, to go with the words and symbols he points to on his communication board, he can't speak the words, but there is a synchrony, a co-ordination, between what he has pointed to and the vocalization he has made. It's just that his particular idea of synchrony is still foreign to us. We're not used to it, and don't yet recognize the power it has in making the thoughts of our non-speaking friends as real as our speaking friends.

You see, there are many things that even the most controlled person does automatically — the dilation of the pupils of the eyes, for example — that give me all sorts of cues about how he or she may feel about something. What I'm saying is look for it; see whether there is some consistency there. People with cerebral palsy can't control their body movements and gestures the same way you and I can, but it's important that we look for their cues and messages. They're there.

And another important point. If I'm standing, and you (the symbol user) are sitting, you also get the impression that I don't have very much time to spend with you, so you'd better hurry up and get what you have to say said before I walk away from you. That, of course, is true of everybody, but it is especially true of a person who is non-ambulatory and cerebral palsied. At best the cerebral palsied person has difficulty relaxing. So if I'm in a standing position, and I give off non-verbal cues that say, 'You'd better hurry and get those symbols pointed to because I've only got a couple of seconds to spend with you', that can only add to their tension and spasticity.

I need to make one thing clear. Non-speaking people do not need to learn to communicate at the same

rate we do, but I would like to help them make their communication more efficient.

You see, the thing that distresses me most is that today we have hundreds of people using communication boards for little more than answering yes or no questions or giving minimal information. Their systems are not being used to do what you and I are doing now — engaging in dialogue and conversation.

Another thing we need to do is interact more with our handicapped children from the very beginning, as we do with our able-bodied children. We treat handicapped children differently, and we teach them to be helpless. We have not encouraged them to be initiators. And yet most behaviour and communication is not only response, but also initiation. It's only been very recently that kids using non-automated communication boards have had noise makers or sound makers attached so they can signal that they would like to request something; or that they have something to say.

I believe that to teach is actually simply to arrange environments that will allow learning to take place. And I feel it is our role, whether we're teachers, clinicians or parents, to provide experiences so that our children can do some real learning. Handicapped children must be encouraged to try new things — to even dare to fail. None of us, handicapped or able-bodied, can grow unless we're courageous enough to risk failure.

Allow me to make one last comment relative to changes which need to take place in the use of Blissymbols. A symbol system must grow as a language grows. Languages become dead or archaic when there isn't room for them to change or expand. We no longer speak in old English; our definitions change. By the same token, if symbols are going to live they must remain alive, and to do so, some of them will need to change to keep up with new definitions, new concepts, new ideas. If some fall behind, I would speculate that the reason they do is because they are no longer dynamic.□

Research and Publications



Ingredients for a Good Picture

by Geb Verburg



'Research and Publications' is headed up by Geb Verburg, who has been involved in the field of non-speech communication since the mid-seventies. A cognitive scientist, Mr. Verburg is currently working as research officer in an OCCO project investigating the use of microcomputers with the disabled.

More and more picture-based communication systems are emerging, each with its own style, rationale, objective and, sometimes, its own target population. All these systems require that the user/listener process visual information and arrive at an intended meaning. I want to discuss some of the variables that are important in this processing procedure, both from a developmental and a cognitive point of view. For example, I will draw upon the Picture Dictionary (PD) created by Ina Kirstein in 1981; Picture Communication Symbols (PCS) by Roxanna Mayer Johnson (1981); Pictogram Ideogram Communication (PIC) by Subhas Maharaj (1980); and Picsyms by Faith Carlson (Carlson and James, 1980).

Some of the variables that affect the processing of picture information are the perceptual dimensions of size, shape, colour, orientation and direction. Another variable is the 'similitude,' or the extent to which a picture looks like the thing it represents — as in a photograph or, by contrast, in a cartoon. 'Complexity,' too, is a perceptual processing variable with a considerable research background. Finally, the 'part/whole' variable also plays an important role in picture perception. These variables, which are always studied separately, play their part in concert in their practical application. Research results should thus be considered carefully and critically.

Perceptual Dimensions

Size is an important variable for the obvious reason that lack of visual acuity and vision problems are frequent among users. Most systems provide two or more picture sizes to allow a choice. A more difficult size-related problem is the relative size of depicted objects. For instance, in PD (The Picture Dictionary) drinking straws appear in the same size as broom handles, which in the absence of other contextual clues (e.g., a glass or pop bottle) make the straws difficult to identify.

The ability of colour to attract attention — its salience — is well established. And while research shows that children do exhibit distinct colour preferences, these tend to change in the course of the child's development. PIC employs solid black shapes to capitalize on the salience of this 'non-colour.' A better option appears to be colouring in a line drawing, as suggested for PD. This allows for the choice of a more salient colour, which both suits the user's preference and resembles the object depicted.

Orientation and direction play a

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role, in the sense that the concept 'up and down' appears to be easier for children to grasp, while 'left and right' is more difficult. The diagonal is also a problem for children up to age 6 (Olson, 1970).

Different Ways to Represent Objects

Similitude, or exact photographic likeness as opposed to graphic representation of an object, has a somewhat surprising effect. The speed with which subjects can process cartoon stimuli is higher than that of a detailed line drawing; photographs are processed the slowest (Gibson, 1969; Kennedy, 1974). Presumably this is so because the amount of information — both useful and redundant — in a photograph is greater than in a line drawing and a cartoon. A cartoon further tends to exaggerate just those features that especially characterize an object. However, when one looks at the association of meaning to a photograph (of an object the child is familiar with, such as his family kitchen) one can see that the photograph can be readily recognized as a representation of this familiar object (Reynell, 1979).

There is, however, one problem here: a photograph of any kitchen will not do; the child will only recognize the object easily if he is shown a photograph of his own kitchen at home. This is true, of course, because a photograph of a kitchen is not a symbol for kitchen, but only a facsimile. Thus, if a photograph of just any kitchen were used, the child would very likely not recognize it as easily as a simple picture with typical kitchen things in it.

Given a research context, 'complexity' is normally defined as the number of elements in a given stimulus. And, predictably, as stimuli become more complex they take longer to process and/or more errors are made. In picture systems we could perhaps consider the number of objects or distinct ideas in a picture as factors that increase the complexity. For example, the use of the arrow to indicate body parts in PD, and the arrow of time that signifies the tense of a verb in Picsyms, are extra pieces of infor-

mation that must be processed.

It is of course very difficult to represent tense and its root idea, time, in a simple way. Some of the systems (PD, PCS, PIC) dispense with the problem of tense altogether. In PCS the symbol for time is the same as that for clock, and in PD there exists no symbol for time; however, the system does include the pictures for 'clock,' 'time clock' and 'cleaning time'.

Part/Whole Relationships

Finally, the part/whole variable can be regarded from both an experimental and a developmental view. First, in the experimental view, a stimulus that consists of several parts or elements can be either 'integral' or 'non-integral.' An integral stimulus is one in which the elements make an 'integral' whole so that we would have to expend energy to analyze the stimulus picture into its component parts. In a non-integral picture, on the other hand, we cannot avoid processing the distinct (non-integral) parts and we must, as it were, expend energy to put the picture together. Integral stimuli are processed faster than nonintegral ones (Garner, 1974).

From a developmental perspective, it has been observed that the young child experiences difficulty with part/whole relationships (Elkind et al, 1964). It may happen that the child can see the whole but is then unable to perceive parts of the picture as separate elements; or conversely, if a child sees a part of the picture the whole may be lost. For example, in PD one picture for 'sick' is a sad-faced person in bed. The sad face is pronounced enough that it became the only feature to which my 5-year-old daughter responded when I asked her to identify some of the pictures. Similarly one of PCS's pictures for hot/cold (thermometer with high/low mercury level and up/down arrow) became 'black and white' and 'up and down.'

Concerning the use of multiple pictures for a given concept, I tried to see whether there was a logical, linguistic or actuarial reason for producing two or three pictures for some concepts and only one for others (as in PCS, PD). The multiple pictures sometimes correspond to

frequently used concepts (e.g., eat, in/out), sometimes to an abstract and more pictorial version of the object (church), but no consistent rationale is provided for deciding upon multiple or single pictorial representations. Since all systems differ in the concepts for which there are multiple pictures, the use of several systems allows people to express themselves more fully.

Emergence of a New Field

Though I have questioned, explicitly or implicitly, the parts of the systems discussed here, I want to emphasize my admiration for the work done by the creators of these systems. Each one or each team of creators has taken on the formidable task of constructing in a few short years something which, in the evolution of societies, took thousands of years to develop. Natural language was not created by one person, nor even by one team, but has grown out of the interaction of many people.

So far the picture-based systems lack both an evolutionary history and the scouring, purifying, distorting and generative consequences of long years of active use. The extent to which any augmentative communication system can become self-correcting, generative and general, will determine the viability of the system. Whether picture-based systems can grow into self-correcting and generative systems is something that only time will tell. Laboratory and field research can help in this growth process, but more than the systems' creators and the researchers, you the user, you the teacher and you the listener will play a crucial role in refining augmentative systems, and helping them to mature and become ever more communicative.

A Milestone in Communication

I would like to make a few comments about that most important forum, the conference; in particular the Second International Conference on Non-Speech Communication held in Toronto in November, 1982. The conference brought together a large number of multi-disciplinary North American and European leaders in

the field of Augmentative Communication, and a scintillating three-day conference and weekend pre-conference seminar were the result. Conference topics included research, assessment, system selection and comparison, teaching and training strategies, speech synthesis and, of course, various technological and microtechnological issues.

At the preconference seminar, where Presentors exchanged views and could plan and dream about the future of service and research in our field, an appeal was made to promote the practice, science and service of Augmentative Communication as an independent field — a separate, internationally organized discipline with an identity of its own. The November conference was a milestone in Augmentative Communication's growing maturity. The proliferation of picture-based systems is an important indication of this growth process. □

Recommended Reading

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- Gibson, Eleanor J. *Principles of Perceptual Learning and Development*. New York: Appleton, 1969.
- Kennedy, John M. *A Psychology of Picture Perception*. San Francisco: Jossey Bass, 1974.
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- Maharj, Subhas C. *Pictogram Ideogram Communication*. Regina, Saskatchewan: George Reed Foundation for the Handicapped, 1980.
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- Reynell, Joan. 'Pre-Language.' *Child: Care, Health and Development*, 5 (1979): 75-80.

Machines, Computers and Things



The Synthetic Speech Revolution

by Patricia Fitzpatrick

A number of scientists and researchers currently working in the field of synthetic speech were among the many distinguished speakers taking part in the Second International Conference on Non-Speech Communication held in Toronto in November, 1982:

Sheri Hunnicutt of Sweden, a linguist and expert in speech synthesis systems, gave a demonstration of 'Blisstalk,' an electronic Blissymbol communication board developed by Hunnicutt and her colleagues at the Department of Speech Communication and Music Acoustics, the Royal Institute of Technology, Stockholm, Sweden. On this 500-word Blissymbol board, Ms. Hunnicutt explained, the symbols are selected or accessed by a magnet and their corresponding linguistic expressions spoken by a built-in speech synthesizer (or written as text) in either English or Swedish. (A French vocabulary is also being developed.) This multi-language, portable, text-to-speech system contains a format speech synthesizer, which is programmed on a signal processing chip, a powerful microprocessor and a variety of text input equipment. The Blissymbol-to-speech programs transform the series of symbols indicated by the Blissymbol user into a corresponding well formed sentence, which is then produced as a spoken or printed message.

Communicating between the Bliss-talk board and other electronic devices is done using a standard RS232 interface via the new BLISC11 codes; for text output, the board can thus be connected to a TV screen or printer.

Ms. Hunnicutt pointed out that a module containing the speech synthesizer system, and including the Blissymbol grammar, is being

manufactured and will be commercially available. This system, which can be connected to any electronic Blissboard having BLISC11 codes (the Blisstalk board itself is not yet in regular production), is marketed by InfoVox, a division of the Swedish National Development Company, Box 7733, S-10295, Stockholm, Sweden.

To conclude, Hunnicutt reported that a group in Sweden who have been using synthetic speech communication devices with young vocally handicapped children are convinced that synthetic speech improves linguistic capability. As a result of this belief the group has applied to the Swedish government for funds to expand both their equipment and their synthetic speech program

* * * * *

John Eulenberg, a pioneer in the development of synthetic speech, and Director of the Artificial Language Laboratory at Michigan State University, hosted a seminar on the recent advances in the development of intelligent communication aids. Eulenberg discussed the application of technology and linguistic knowledge in the design and production of electronic communication aid prototypes designed to enhance the fluency and expressiveness of synthetic speech (and written text). These prototypes, he said, would also match the cognitive abilities of the user. Eulenberg also demonstrated the SAL (Semantically Accessible Language) Board, a synthetic speech device which has evolved from a lap tray mode to a portable board that can be attached to a wheelchair.

During this session, Dr. David Beukelman, Director of Speech Pathology Services for the Depart-

This section of *Communicating Together* is sponsored by the Rotary Club of Willowdale Community, Willowdale, Ontario.

ment of Rehabilitation Medicine at the University of Washington, Seattle, described another type of synthetic speech system. The system, primarily developed by Paul Schwejda of the University of Washington's Child Development and Retardation Center, features a word predictive linguistic program that increases the output speed of the speech synthesizer.

Continuing in the same session, another two participants, Barry Romich, President of Prentke Romich, an Ohio-based company which manufactures communication aids, and Bruce Baker, Consulting Linguist to Prentke Romich, demonstrated 'Minspeak,' a new communication aid designed for disabled persons who cannot express themselves through speech or hand signs. Incorporating microprocessor technology, a person using a Minspeak board with fewer than 50 keys can produce clear, spoken sentences with fewer than seven strokes, thus reducing the time and effort required for self-expression. Each symbol can represent a number of different ideas, the meaning of each symbol changing according to the sequence in which it is struck. By combining these symbols whole sentences can be generated and the complexity of the symbols programmed to meet the needs and abilities of the user.

*** ** *

Richard Foulds, Assistant Professor of Rehabilitation Medicine and Director of Rehabilitation Engineering at Tufts-New England Medical Center in Boston, chaired a session looking at the quality of speech synthesizers currently on the market. Foulds pointed out that technological advances in speech synthesis are progressing so rapidly that systems are often outmoded by the time they are marketed.

During Fould's session, Kathy Fons of the Votrax Research Laboratory in Troy, Michigan, demonstrated the advances made in the Votrax speech synthesizer. The synthesizer can produce speech, music and sound effects, as well as printed text and graphics. The system also gives the user the ability to produce speech, writing, music and art. This next stage in the synthetic speech revolution is already a reality. □

Blissymbol Talk



New Symbols

chocolate, cocoa

food + powder
+ brown

chocolate spread

spread + chocolate

hot chocolate, cocoa, chocolate drink

drink + chocolate

ice cream cone

Pictograph (template shapes 7 & 10)

yogurt

food + milk:
food made from milk

fruit yogurt

yogurt + fruit

Explanation of New Symbols

Pictographs

look like the thing they represent.

fruit

grapes

alcoholic drink

Ideographs

relate to ideas associated with the thing they represent.

food

drink

spread

For New Symbol Users

For those new to Blissymbols, one of the most powerful capabilities of the system is the *combined strategy*. This allows users to sequence symbols already available to them and to arrive at new personal *combined* symbols. It's like spelling — only instead of using letters, symbol users include meaning components (Blissymbols).

Two important rules:

1. The classifier (the kind of thing it is) comes first.
2. The new sequenced symbol must be preceded and followed by the combine indicator.

The reason for these rules:

1. It helps communication if the most important information is provided first.

2. The new personal symbol must be identified as not being part of the Standard set of Blissymbols.

Examples of combined symbols:

Research (See p. 17.)

question + scientific:
questioning in a scientific manner

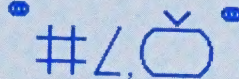
Perspective (See p. 16.)

opinion + along with + knowledge:
an opinion accompanied by knowledge

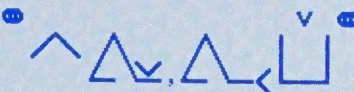
A Symbol Quiz for Beginners

1. After reading 'For New Symbol Users,' refer to new symbols in both the Inaugural Issue and this issue, and give meaning for the following combined symbols:

a)



b)



2. Using the symbols introduced in both the Inaugural Issue and this issue, create combined symbols for:

- a) shawl
b) marmalade

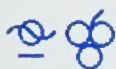
(Answers on p.23)

grape(s)



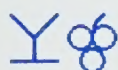
Pictograph

grape juice



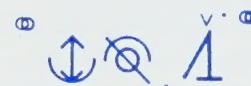
drink + grape(s)

wine



alcoholic drink
+ grape(s)

Augmentative Communication



The Second International Conference on Non-Speech Communication

In November of 1982, Toronto was once again the site of an international conference on non-speech communication. The Second International Conference on Non-Speech Communication held in the Ontario Institute for Studies in Education, Toronto, Canada, November 15, 16, 17, was sponsored by:

- The Blissymbolics Communication Institute
- The Ontario Speech and Hearing Association
- The Ontario Crippled Children's Centre
- The Ontario Institute for Studies in Education

The number of professionals attending the Second International Conference on Non-Speech Communication — over 500 registrants — paralleled that of the first conference in 1980, and the same high level of interest and professional activity was evident. But in 1982 something new was added — a feeling of excitement and exhilaration as a field of knowledge and service became aware of itself and its growing up. In 1980, the focus of the conference was on the information required by the inexperienced professional. In 1982, a wide spectrum of needs had to be met: those of newcomers to the field, those of allied professionals, and those of instructors, researchers,

For Experienced Symbol Users

Those who are experienced with Blissymbols may have wondered about three new symbols appearing in the Inaugural Issue. Truly, we were not trying to test you! But errors in layout did appear. Since the principles involved relate to creating combined symbols as well as standard sequenced symbols, we thought the corrections provided a good beginning for this issue's Symbol Talk.

	Incorrect Version	Correct Version	Revisions
sandals			add comma; delete evaluation indicator
slippers			add comma
shorts			delete evaluation indicator

The rule regarding commas is to add them as required, for easy interpretation of the total sequenced symbol. In the above examples, *sandal* and *slipper*, it is helpful to clearly separate the sequenced symbol for *shoe* from the descriptors, *open* and *house*.

The rule regarding evaluation indicators over the non-classifying components of a sequenced symbol is to include them only as required to avoid a misinterpretation of meaning. In the symbol for *sandal*, the meaning of *opening* or *open* serves the total meaning equally well; hence no evaluation indicator is required.

In creating your own combined symbols a good general rule, with regard to both commas and evaluation indicators over non-classifying components, is to include them only when necessary.

This section of *Communicating Together* is sponsored by the Sir Joseph Flavell Foundation, Toronto, Ontario.

clinicians, technicians and administrators intensively involved in non-speech communication. Topics included the identification, assessment and performance evaluation of those who require augmentative communication systems, communication systems currently being used, instructional considerations, special population and setting needs and the role of technology within communication systems.

A number of sessions were very highly praised, including the following, which were given a three-star rating by conference participants:

—**Getting Us All Together**, with chairpersons Shirley McNaughton of BCI, David Yoder of the University Of Wisconsin-Madison, Rick Foulds of Tufts New England Medical Center and Peter Lindsay of the Ontario Institute for Studies in Education. A day long session of four panels in which non-speaking people, their families and instructors talked with developers and distributors and looked at current issues and challenges for the future.

—**Picture Communication Boards**, with Ina Kirstein of Oakland Schools, Pontiac, Michigan. The use of pictures for communication by young children and low-functioning children and adults within Oakland Schools.

—***State of the Art of Microcomputers**, with Carol Cohen of the Schneier Communication Unit, Syracuse, New York. A technical description of hardware and software; applications of microcomputers in various environments and with a variety of disability groups; case studies and a look to the future.

—***Non-speech Communication Strategies for Infants**, with Faith Carlson and Cathy George of Meyer Children's Rehabilitation Institute, Omaha, Nebraska. Intervention centred on a balanced set of strategies; toward the goal that children from birth to 18 months of age have at all times a means of communicating their interests and intentions regardless of the severity of their problem; a combination of diagnostic therapy, and parent or community training.

—**Prescribing the Microcomputer for Non-Vocal Severely Physically Handicapped Children and Adults**, with G.E. Rushakoff of New Mexico State University, Las Cruces, New Mexico.

Rationale for using the Microcomputer; factors to consider in prescribing a microcomputer as a comprehensive living aid for the physically impaired child or adult; types of controls; training. Possible applications — communication, academics, writing, creative art, recreation, vocation, record-keeping, environmental control.

—**Conversation and Communication with Non-Speech Systems**, with Arlene Kraat of Queens College, New York. The special conversational strategies needed for communication between augmentative aid users and vocal speakers; implications for clinical training and research.

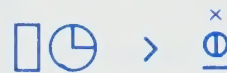
—**An Orientation to Non-Speech Communication**, with presentations by Macalyne Fristoe, Arlene Kraat, Caroline Ramsey-Musselwhite, Penny Parnes and Gregg Vanderheiden. Full day overview and state of the art for those new to the field of non-speech communication.

—***Evaluating the Non-Verbal Physically Handicapped Child with a View to the Selection of an Augmentative Communication System**, with Nora Rothchild and Barbara Collier of the Ontario Crippled Children's Centre, Toronto. Evaluation as a learning experience; stimulating the child to use what he already knows within functional communication; factors pertaining to the child, the environment and communication systems as they relate to a dynamic approach to evaluation. □

Thirty-two abstracts are included in the Second International Conference on Non-Speech Communication Conference Proceedings. Available from the Blissymbolics Communication Institute, Toronto. Price \$10 Canadian funds, \$8 U.S. funds.

**Presentations appearing in Conference proceedings.*

Schedule of Events



BCI Elementary Workshops

BCI Elementary Workshop training sessions are held throughout the year and provide professionals and families with an opportunity to learn about Blissymbolics. The workshops include thirty hours of lectures, and group and individual assignments.

Forthcoming Workshops:

In Ontario

—July 5-8, and

—October 17-20, 1983

Ontario Crippled Children's Centre, Toronto

Contact: Blissymbolics Communication Institute, 350 Rumsey Road, Toronto, Ontario, Canada M4G 1R8
Telephone: (416) 425-7835

—June 27-29, 1983 in Sault Ste. Marie

Contact: Mrs. Marquise Sopher, Algoma District Mental Retardation Service, 205 McNabb Street, Sault Ste. Marie, Ontario, Canada P6B 1Y3

Telephone: (705) 254-6487

In Quebec

—April 26-29, 1983

Contact: Odette Gronein, 2015 Blvd. Dionne Bauce, St. George, P.Q., Canada G5Y 3X5

In New York State

—April 13-15, 1983 in Bohemia, New York

Contact: Mrs. Susan Sansone, Suffolk Association for the Help of Retarded Children, 2900 Veteran's Memorial Highway, Bohemia, N.Y. 11716 U.S.A.

Telephone: (516) 585-0100

In West Germany

—April and September, 1983 in Dusseldorf

Contact: Mr. Hermann Frey, Rothhauser Weg 34, 4000 Dusseldorf 12, West Germany

Correspondence Course

—March through June 1983
Registration by March 14, 1983,
with two-day workshop, June
10 & 11
Contact: Dr. Eugene McDonald,
Home of the Merciful Saviour for
Crippled Children, 400 Baltimore
Avenue, Philadelphia, P.A. 19104
U.S.A.
Telephone: (215) 222-2566

New Organization

An important event at the Non-Speech Conference in Toronto, November, 1982, was the initiation of an Action Committee to study the formation of an international interdisciplinary organization dedicated to the field of Augmentative Communication.

International delegates are being invited to an organizational meeting to be held in East Lansing, Michigan, May 19, 20, 1983. Suggestions are invited regarding issues. Please send your ideas to:

Shirley McNaughton and Penny Parnes, Action Committee Chairpersons, Blissymbolics Communication Institute

One-Day Conference

May 21, 1983

East Lansing, Michigan

There will be an open conference following the organizational meeting of the Action Committee. For information, write:

Tammy Redburn
Artificial Language Laboratory
Computer Science Department
Michigan State University
East Lansing, Michigan 48824

Answers to Symbol Quiz (from p.21)

1. (a) handkerchief for neck: scarf
(b) open-toed shoes



For a better understanding of all of the component parts within Blissymbols, the reference *Blissymbols for Use*, B. Hehner, 1980, is highly recommended.

Trace Center Workshop Schedule

In Massachusetts

—April 8, 9, 1983 Selection and Practical Application of Microcomputers for Handicapped Individuals
Contact: Denise Riley Okun, Northeast Communication Group c/o Middlesex County Hospital, 755 Trapelo Road, Waltham, MA. 02154, U.S.A.

In Pennsylvania

—May 13, 14, 1983 Development of Communication and Interaction in Non-Vocal Children and Adults
Contact: Mata Jaffe, Rehabilitation Institute of Pittsburgh, 6301 Northumberland Street, Pittsburgh, PA. 15217 U.S.A.

Internship 1983

In Toronto

—Oct. 11 to Nov. 11
The Blissymbolics Communication Institute **Internship Program**, held in Toronto each autumn, provides special training for professionals who are responsible for developing and supporting Blissymbol programs in their country or region. Activities included in the five-week program are an Elementary Training Workshop, observation and participation in clinical and classroom settings and individualized study in areas of special interest. (See p.6.)
For further information write Mrs. M. Spicer, Blissymbolics Communication Institute.

Readers Write



Readers are invited to contribute letters with comments and requests to this regular column.

Dear Mrs. McNaughton,
My name is Ellen Kane, I am 14 years old. My school is Matheny. I would like to have a pen pal. Please?

Thank you.

Ellen Kane is a cerebral palsied child who uses a Canon Communicator in addition to her communication board. Are there children who would like to write to Ellen using their Canon Communicators? Interested readers please write to Ellen Kane, The Matheny School, New Jersey, 07977, U.S.A.

* * * * *

And we have another request for a pen pal from Tonia Reed. Tonia is 10 years old and has cerebral palsy. She is interested in a pen pal who uses Blissymbols. Interested readers please write to Tonia Reed, Apt. C-10, 4211 Erksine Road, Clarkston, Georgia, 30021 U.S.A.

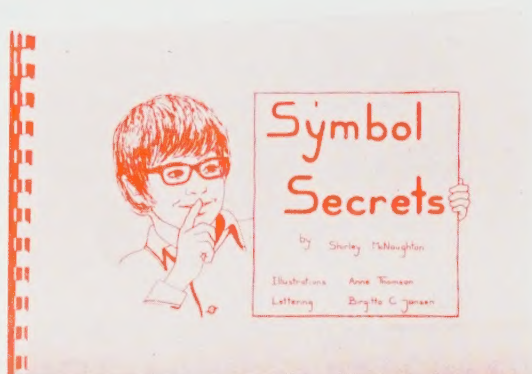
For Your Information

Blissymbol components used in section headings and design...

Now, with accompanying words:

person 	I, me 	public 	woman 	man 	family 	(to) bite 	(to) yell
(to) communicate 	(to) help, aid 	(to) share 	(to) teach 	(to) learn 	(to) read 	(to) write 	(to) get, receive
science 	Blissymbol 	knowledge 	opinion 	event 	idea 	time 	plural indicator x
machine 	computer 	thing 	schedule 	paper, page 	book 	mouth 	who, which, what, when, where +
question 	together 	excited 	angry 	and, also + 	along with ++ 	belongs to, of (possessive) + 	combine indicator @

BCI PUBLICATIONS



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